Esophageal Squamous Cell Carcinoma with Skin Metastasis —— A Case Report and Review of Literature

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The skin metastasis from carcinoma arising in other organ is not uncommon, yet it may be the first presentation of neoplastic diseases. When they occur on the face, their pleomorphic presentation may lead to misdiagnosis. However, esophageal cancer metastasis to skin is rather rare. We report a case of esophageal squamous cell carcinoma with metastasis to the skin as its first clinical manifestation. To our acknowledgement from the literature, this is the first report of esophageal squamous cell carcinoma with cheek skin metastasis. Although there are some clues of the cutaneous lesions to help us in differential diagnosis, the detailed history and physical examination with a highly alert attitude are still the best way for early cancer detection. The skin biopsies from suspicious lesions should be performed without exception. (J Plast Surg Asso R.O.C. 2007;16:241～245)

Key words: esophageal cancer, skin metastasis

Introduction

Esophageal cancer is the sixth most common cause of cancer mortality worldwide. Metastases from esophageal carcinoma usually spread to lymph nodes, followed by liver, lung and bone. Cutaneous metastases are rare. We present a 37-year-old male who suffered from right lung empyema with a chest tube insertion for drainage in the local clinics. He was transferred under the impression of mediastinitis to our hospital. The computed tomography demonstrated a deep neck infection with mediastinal abscess and abnormal thickening of the esophageal wall. The panendoscopy biopsy of esophagus proved as squamous cell carcinoma. At that time, there was a painless 0.1x0.1 cm^2 mass over left cheek skin. Three months later, the pathologic report of the mass revealed metastatic squamous cell carcinoma. This case highlights the importance of considering metastatic skin lesion may be existence in patients with malignant disease.
Case Report

A 37 y/o male was referred to our emergency department because of fever and right chest pain for 2 days. He had a heavy smoking habit for one pack per day during past twenty years and social alcohol consumption for twenty years. No other specific findings were noted in the patient's history. There was no family history of gastrointestinal cancer. In local medical clinics, CXR revealed right lung empyema and a chest tube was inserted for pus drainage. In our hospital, under the impression of mediastinitis, a contrast-enhanced CT scan of the thorax and abdomen were performed which revealed some gas lucency in upper mediastinum with irregular contour and blurring of adjacent fat plane, lobulated pleural effusion and focal pneumothorax, pericardial effusion, right lower lobe of lung consolidation with air-bronchogram and abnormal thickening of esophageal wall. He received emergent operation for decortication of pleura, partial pericardiectomy and feeding jejunostomy. The biopsy findings of esophagus by using panendoscopy were consistent with squamous cell carcinoma. The post-operation course was smooth. The patient was treated with regional radiotherapy palliatively. Two months later, followed up CT examination of chest revealed 17 mm nodule in posterior basal segment of right lower lobe of lung, enlarged lymph nodes in right paratracheal stripe and prevascular space.

In Tc-99m whole body bone scan study, skeletal metastasis was found. The patient was discharged and received continuous radiotherapies. Three months later, he was referred to plastic surgery department due to progressive enlargement mass over left cheek skin. The size of protruding nodular mass was about $3 * 2 * 0.5 \text{ cm}^3$ with irregular border and eschar on its surface (Fig.1). Tracing back his history initially, there was a $0.1 * 0.1 \text{ cm}^2$ painless mass over left cheek skin three months ago before the admission for empyema. He deemed it was a vesicle, and paid no attention. There was no bleeding, nor any other discomfort. The mass became larger and larger after chest operation. Under high suspicion of malignancy, the mass has presented and previous cancer history, the biopsy was performed only to reveal metastatic squamous cell carcinoma (Fig.2). Then he received a wide excision of the skin cancer with a margin of 1.5cm and full-thickness skin graft from left groin area for the skin defect resurfacing (Fig.3). The depth of cancer was subcutaneous fat layer without muscle invasion and no oral mucosa lesion was noted. During one year follow-up, there were multiple metastases to left upper neck lymph nodes and lumbar spine, with exception of facial skin.
Discussion

Esophageal cancer is popular in Taiwan. According to the data from the department of Health, esophageal cancer incidence in males in 2002 was ninth and mortality rate in 2005 sixth among the cancer group. The tumor is often prevalent in males and has a modal peak of occurrence in the 7th decade. The pathogenesis of the esophageal neoplasm is still uncertain but likely to be multi-factorial. The most common histological subtype is squamous cell carcinoma in Taiwan and that is different from the Western world as adenocarcinoma.

Dysphagia and weight loss are by far the most common symptoms at the time of esophageal carcinoma diagnosis. In a few patients, dysphagia doesn’t occur and symptoms arise from invasion of the primary tumor into adjacent structures or from metastases. Extension of the primary tumor into the tracheobronchial tree is the cause of stridor, and if a tracheoesophageal fistula develops, will induce coughing, choking, and aspiration pneumonia. Rarely, severe bleeding due to erosion into the aorta or pulmonary vessels will occur. The vocal cord paralysis may be either invaded directly, or most commonly, caused by invasion of the left recurrent laryngeal nerve by the primary tumor or lymph node metastasis.

Dysphagia usually presents late in the natural history of the disease because the lack of a serosal layer on the esophagus allows the smooth muscle to dilate with ease. As a result, the dysphagia becomes severe enough to for the patient to seek medical advice only when more than 60 percent of the esophageal circumference is infiltrated with cancer. At the initial encounter with a patient diagnosed as the esophagus carcinoma, a decision must be made as to whether he or she is a candidate for curative surgical therapy, palliative surgical therapy, or nonsurgical palliation.

Breast and pulmonary carcinoma are the most frequent primary lesions that may spread to the skin. Head and neck, chest and abdominal wall are the most common sites of cutaneous metastases\(^2\). Skin metastasis from esophageal carcinoma was extremely rare\(^3\).

The possible mechanism of skin metastasis from internal organs is inflammatory oncotaxis - skin that is damaged allows for circulating malignant cells, often of epithelial or leukemic origin, to lodge and proliferate locally. In this case, he did not recall any facial trauma history but he did scratch the lesion in the beginning as he thought it was a vesicle.
From the literature, there were esophageal squamous cell carcinoma metastasis to distal phalanx of thumb, brain, spleen, kidney, breast.

Skin metastases from esophageal squamous cell carcinoma are the first case.

In this case, skin lesion was already present before the time of esophagus tissue was proved malignancy but with only 0.1*0.1 cm² painless papule appearance. It is not easy to differentiate it from benign lesion at that time. Signs suggestive of metastasis include rapid growth, lack of local inflammatory response, and intact overlying epithelium in the early stages. The painful cutaneous tumor was also a sign of metastasis. It is important to distinguish a metastasis from primary skin cancer to avoid unnecessary conflicting treatments while metastatic skin tumors are rarely described as an initial sign of malignancy. Although there are some clues of the cutaneous lesion to help us for differential diagnosis, the detailed history and physical examination with highly suspicious in mind are still the best way and biopsies of suspicious lesions should always be performed.

Reference

食道鳞状细胞癌以皮膚病灶為初始表徵

── 一個病例報告

陳信翰 吳肇毅 周爾康 林孟義 江宜平 張家寧

皮膚的轉移性腫瘤並不少見，最常見是從肺癌或乳房癌移轉而來，從食道癌轉移到皮膚的病例非常少。當轉移性腫瘤發生在臉上時，因為其型態的多變性，要和皮膚原發性癌症區別而做正確診斷常常是一種挑戰。我們要報告一個食道癌的病例，其最初的癌症表現是在左臉頰的皮膚，當時由於很小也沒有症狀，病人以為是青春痘並沒有求助醫療診所。三個月後病人因為發燒及胸痛經胸部X光檢查為膿胸而轉診到我們醫院而意外發現食道癌。當時左臉頰的病灶只有 0.1 x 0.1 cm\(^2\)。在經過開刀及放射線治療後五個月，腫塊變成 3 x 2 x 0.5 cm\(^3\)。經過切片檢查證實為食道癌轉移，我們為其做切除及補皮，這是獻上第一個食道鱗狀上皮細胞癌轉移到皮膚的案例，根據獻文，確實是有些線索可以做為早期診斷的依據，但畢竟還是不太容易區分，尤其在早期，詳細的問診及理學檢查加上隨時警覺的心，另外有懷疑時要做切片檢查還是最好的方法。